

In re: O'Dowd et al.
Application No.: 10/509,787
Filed: May 23, 2005
Attorney Docket No. 3477-110
Page 17 of 19

REMARKS AND RESPONSE TO RESTRICTION

Claims 1, 2, 4 to 6, 8, 11, 16 to 20, 27, 30, 31, 34, 37 to 41, 43, 46 to 49, 56, 59, 61, 62, 64 to 66, 68, 73 to 77, 84, 87, 90 to 93, 96, 97, 99 to 101, 103, 106, 112 to 115 and 122 are pending in this application, and were subject to a Restriction Requirement in the Office Action dated May 23, 2006. The Applicant respectfully notes that claim 73 is still pending, but was not so indicated in the Office Action, nor was claim 73 included in one of the claim groupings pursuant to the Restriction Requirement. The Applicant respectfully requests that the status of claim 73 be clarified in the next Office communication.

In addition, the specification has been objected to for failing to comply with 37 C.F.R. §1.821(d). The specification has been amended by the substitute pages submitted herewith to incorporate the sequence identifiers; accordingly, the Applicant submits that the application is in compliance with 37 C.F.R. §1.821(d) and respectfully requests that the objection on this basis be withdrawn. The Applicants are also enclosing a marked up copy of the substitute pages that indicates the changes made for the Examiner's convenience.

Finally, claim 6 has been amended herein to correct clerical errors in the sequence identifiers.

The Examiner has restricted the claims into five groups under 35 U.S.C. §121 and § 372, alleging that the claims are not so linked as to form a single general inventive concept under PCT Rule 13.1. The Applicant respectfully disagrees with the restriction. Nonetheless, the Applicant elects the claims of Group I (1, 2, 4 to 6, 8, 11, 16 to 20, 27, 30, 31 and 34) with traverse. In particular, the restriction should be withdrawn with respect to the claims of Groups I and II, and these claims should be examined concurrently in the present application.

Group I contains claims 1, 2, 4 to 6, 8, 11, 16 to 20, 27, 30, 31 and 34. Group II contains claims 37 to 41, 43, 46 to 49, 56 and 59.

Both claims 1 and 37 are drawn to methods for screening a candidate compound for its ability to interact with at least one transmembrane protein. In these

methods, a cell is transfected with a nucleotide sequence encoding a transmembrane protein containing at least one nuclear localisation sequence (NLS) and the nucleotide sequence is expressed in the cell. The distribution of the expressed protein in a transfected cell contacted with the candidate compound is compared with its distribution in a transfected control cell not contacted with the compound, an altered distribution of the protein in the presence of the compound compared to that in the control cell indicating that the compound interacts with the transmembrane protein.

In the method of claims 1, 2, 4 to 6, 8, 11, 16 to 20, 27, 30, 31 and 34 (Group I) the distribution of the expressed protein in the cell is determined by determining the distribution of a detectable moiety encoded in the transfecting nucleotide sequence and carried by the expressed protein.

In the method of claims 37 to 41, 43, 46 to 49, 56 and 59 (Group II), the distribution of the expressed protein in the cell is determined by isolating the cell membrane fraction of the cell, contacting that with a labelled ligand of the transmembrane protein and thereby determining the level of the transmembrane protein remaining at the cell membrane.

In view of the foregoing, it is respectfully submitted that it would not constitute an undue burden on the Examiner to examine the Group I and Group II claims together in this application.

The Examiner has also required the applicant to elect a single species of (i) NLS and (ii) transmembrane protein. The Applicant again traverses the election of species on the basis that it would not be an undue burden for the Examiner to carry out the search directed to all species which share the function of being nuclear localisation sequences and all species which are transmembrane proteins. Further, the present Restriction and Election of Species unreasonably narrows the scope of Applicant's invention subject to examination.

With respect to the species of NLS, the Applicant elects the species of KKFKR (SEQ ID NO:158). Claims 6, 41, 66 and 101 read on this species.

In re: O'Dowd et al.
Application No.: 10/509,787
Filed: May 23, 2005
Attorney Docket No. 3477-110
Page 19 of 19

With respect to the species of transmembrane protein, the Examiner has referred to the species of claims 19 and 20. The Applicant believes that the election of species should have been directed to claim 17 because the invention encompasses different transmembrane proteins which include G protein coupled receptors (GPCR), transporters, cytokine receptor, tyrosine kinase receptor and LDL receptors. Assuming that the Examiner intended to refer to claim 17, the Applicant elects GPCR as a species. Claims 17 to 19, 46 to 48, 74 to 76, 96, 113 and 114 read on this species.

If the Examiner maintains the current election of species with reference to claims 19 and 20, the Applicant elects the dopamine D1 receptor. Claims 19, 48, 76 and 114 read on this species.

The Applicant further notes that even if one or both of the elections of species are maintained, upon the finding of an allowable species examination will continue with the non-elected species until all species have been examined or a non-allowable species is identified.

This application is now in condition for substantive examination, which action is respectfully requested.

Respectfully submitted,



Karen A. Magri
Registration No. 41,965

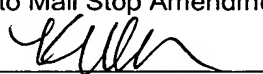
Enclosures: Substitute pages 1-85
Marked up substitute pages

CERTIFICATE OF EXPRESS MAIL

Express Mail Label Number: EV 854925213 US

Date of Deposit: June 22, 2006

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Katie Wu